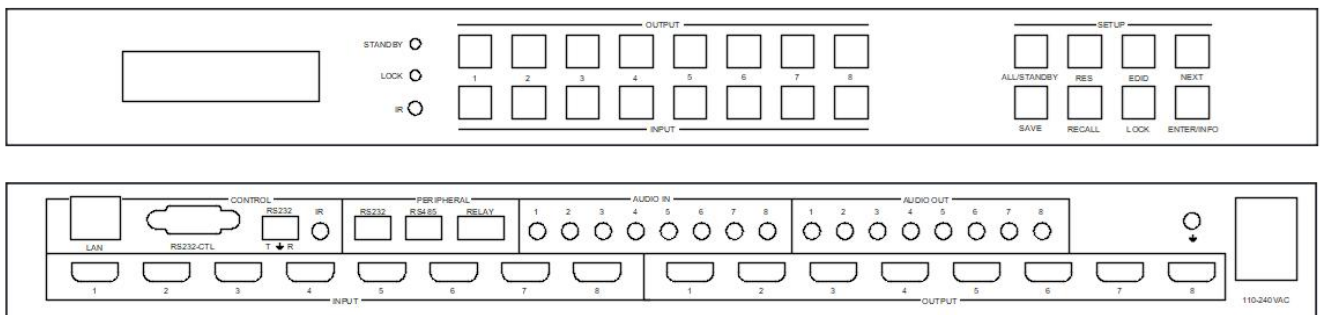


8x8 Seamless Matrix Video Switcher

Seamless Matrix Switcher
4 Window Multiviewer
LCD and LED Video Wall Controller



Warning

- Do not expose this device to Rain, Moisture, and Dripping
- Only use accessories specified by the manufacture
- Unplug this device during Lightning Storms
- The manual is for reference only, maybe updated without further notice

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1. System description

1.1. Introduction

HDMI 8x8 seamless matrix switcher is a high-performance HDMI 2.0 video signal switching device that supports 4K@60Hz processing of input, output, switching, splicing, and multiview.

1.2. Features

1. Support seamless switching between different input source
2. Comprehensive splicing display function with bezel compensation
3. Support two synchronization mode for all output ports: General synchronization mode and Sync delay mode
4. Supports 180° rotation
5. Free multiview up to 4 windows with all outputs
6. 8 Inputs and 8 Outputs: HDMI 2.0, up to 3840x2160/4096x2160@60Hz resolution
7. Support Auto and User Define output resolution, can be flexibly applied to the display of LED wall
8. Support analog audio insert on input side and audio extractor on output side
9. Provide multiple control ports: front panel buttons, remote control, RS232, network and WebGui control

1.3. Specification

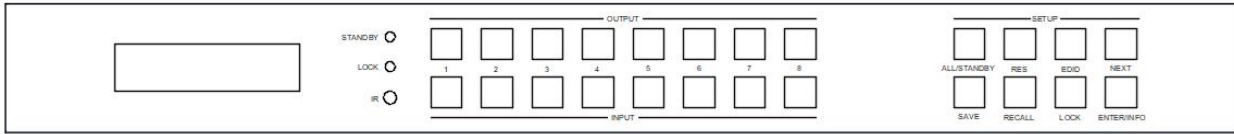
Item	Description
Bandwidth	597MHz, HDMI 2.0
Audio Format	LPCM 2.0
Inputs	8x HDMI, 8x 3.5mm audio interface
Outputs	8x HDMI, 8x 3.5mm audio interface
Power	110-240VAC, 75W Max
Operating Humidity	10 to 70 % RH (non-condensing)
Operating Temperature	0 to +40°C (+32 to +104 °F)
ESD	Air: ± 8KV, Contact: ± 4KV
Dimensions	L430 x W220 x H44 mm
Mass	5kg

1.4. Output resolution index (Hex)

Index	Output resolution	Index	Output Resolution
00	4096x2160p 60Hz	0C	1920x1080p30 Hz
01	4096x2160p 50Hz	0D	1680x1050p60 Hz
02	3840x2160p 60Hz	0E	1600x1200p60 Hz
03	3840x2160p 50Hz	0F	1360x768p60 Hz
04	3840x2160p 30Hz	10	1280x1024p60 Hz
05	3840x2160p 25Hz	11	1280x768p60 Hz
06	3440x1440p 60Hz	12	1280x720p60 Hz
07	2560x1600p 60Hz	13	1280x720p50 Hz
08	2560x1440p 60Hz	14	1024x768p60 Hz
09	1920x1200p 60Hz	15	USER
0A	1920x1080p 60Hz	16	AUTO
0B	1920x1080p 50Hz		

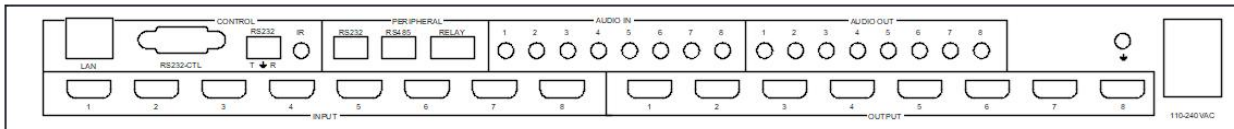
2. Panel Layout

2.1 Front view



- 1) LCM display screen: displays the routing status of each channel. Used together with front buttons, it can set and view some parameters
- 2) OUT SELECT: 1, 2, ...,8, ALL
- 3) IN SELECT: 1, 2, ...,8
Press OUTPUT m +INPUT n +ENTER, switch input n to output m
- 4) ALL button: Press ALL + INPUT n +ENTER, switch input n to all output ports
Long hold ALL button more than 3 seconds, the device will enter or exit standby mode
- 5) LOCK button : Hold this button more than 3 seconds, all the fronts buttons will be locked and will not work.
Hold it more than 3 seconds again, unlock
- 6) Press buttons RES + OUTPUT m + NEXT + ENTER with guide of front LCM screen display, to change output resolution of OUTPUT m
- 7) Press buttons EDID + INPUT n + NEXT + ENTER with guide of front LCM screen display, to change the EDID mode of INPUT n
- 8) SAVE button : Press SAVE+ OUTPUT m +ENTER, save current routing and screen layout to scene m
- 9) RECALL button: Press RECALL+ OUTPUT m +ENTER, load scene m for current displaying
- 10) ENTER/INFO button: Long hold and continuously press this button, front LCD panel will loop display IR ON/OFF,RS232 Baud Rate and IP parameters etc.,
- 11) IR: IR receiver, can be disabled by RS232 command

2.2 Rear view



Control ports:

- 1) LAN control (TCP/IP or Web Control)
IP address: 192.168.0.247, Submask: 255.255.255.0, Gateway: 192.168.0.1, Baud Rate: 9600, NetPort: 23
Web login account : admin, password : admin
- 2) RS232-CTL
Baud Rate: 9600
- 3) RS232-Phoenix:
Baud Rate: 9600
T: Main Unit -> PC, G: Ground, R: Main Unit <- PC
- 4) IR: IR receiver extender interface, just reserved.

Peripheral control ports:

One RS232-phoenix port, one RS485-phoenix port, two relay controller

For details, please refer to the following PC tool for instructions on using peripheral ports control.

Input and output ports

8x HDMI inputs, 8x 3.5mm LR audio inputs

8x HDMI outputs, 8x 3.5mm LR audio outputs

3. Package Contents

Item	Quantity
Main Unit	1
AC Power Cord	1
USB to RS232 cable	1
1 meter RJ45 cable	1
Remoter	1

4. PC Tool user guide

This PC tool is an installation free control software. It is divided into different tabs according to different functions: Connect, Matrix, Signal, TV wall, System, and Multiview

The initial login password is: 111111

4.1 Connect tab

Please note:

1. Use serial cable (straight line) or Ethernet cable
2. When using a serial port connection, the network port connection must be disconnected, and vice versa
3. When connecting through the network port, you must first search for and select the device before connecting

The screenshot displays the 'Connect' tab of the PC Tool software. The interface includes the following elements:

- Navigation Tabs:** Connect (selected), Matrix, Signal Config, TV Wall, System, Multiview, English.
- RS232 Settings:** Uart: COM3, Baudrate: 9600, DataBit: 8, Parity: None, StopBit: 1, FlowControl: None. A 'Connect' button is present.
- Network Settings:** Network: TCP-Server, IP: 192.168.0.247, Port: 23, SubMask: 255.255.255.0, Gateway: 192.168.0.1. A 'Disconnect' button is present.
- Status Log:** A text area showing sync messages for Output-1 through Output-4 and TV Wall. A 'Clear' button is at the bottom.
- Search List Table:**

Number	Device Name	IP	MAC	Version
1	LQSX_N8	192.168.0.247	50-0A-00-34-00-62	24
- Search Device:** A button circled in red.
- PC Network Info:** A dropdown menu showing '192.168.0.108 <WLAN>'.
- Confirmation:** A green checkmark icon in the bottom right corner.

4.2 Matrix switch tab

Connect **Matrix** Signal Config TV Wall System Multiview

Switch

Output\Input		Input1	Input2	Input3	Input4	Input5	Input6	Input7	Input8
		1	2	3	4	5	6	7	8
Output1	1	☒							
Output2	2	☒							
Output3	3	☒							
Output4	4	☒							
Output5	5	☒							
Output6	6	☒							
Output7	7	☒							
Output8	8	☒							

A A,B can be renamed

Allset: — Set one input to all output ports

Save/Load — Save or load scene, include video routing,wall splicing,multiview information

EDID — 1. Read EDID of displayer 2. Load one EDID file 3. Write EDID to input port

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4.3 Signal config tab

Connect Matrix **Signal Config** TV Wall System Multiview English

Port	Input Type	Input Format	Input Output Format	Audio Select	Bind
1	HDMI	3840x2160p30	3840x2160p30	Embedded	☐ Read
2	HDMI	No-Signal	No-Signal	Embedded	☐ Read
3	HDMI	No-Signal	No-Signal	Embedded	☐ Read
4	HDMI	No-Signal	No-Signal	Embedded	☐ Read
5	HDMI	No-Signal	No-Signal	Embedded	☐ Read
6	HDMI	No-Signal	No-Signal	Embedded	☐ Read
7	HDMI	No-Signal	No-Signal	Embedded	☐ Read
8	HDMI	No-Signal	No-Signal	Embedded	☐ Read

Read All Input

More

No Signal,Input's Mode:

No Signal,Output's Mode:

Output

Port Rotate Test Pattern

1 0 Off

Multiview Config

Port Output Mode

1 Normal

User Define Resolution

Port H Width V Height

1 Write Read

Video Keep Alive mode when no signal input
1. BlackScreen 2. Bluescreen 3. No output

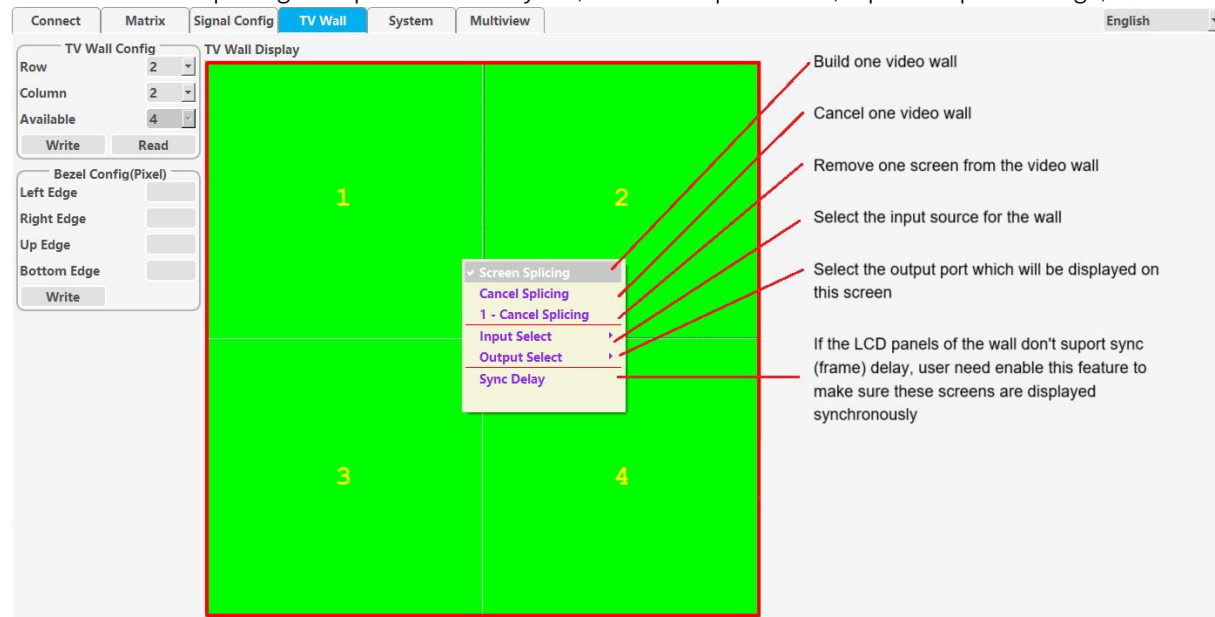
Rotate selection for one output
1. 0° 2. 90° 3. 180°

Config the output mode for the first output port of one output slot
1. Normal 2. Multiview

When the first port of one output slot works on multiview mode, the other three output the same with the first port, including output resolution

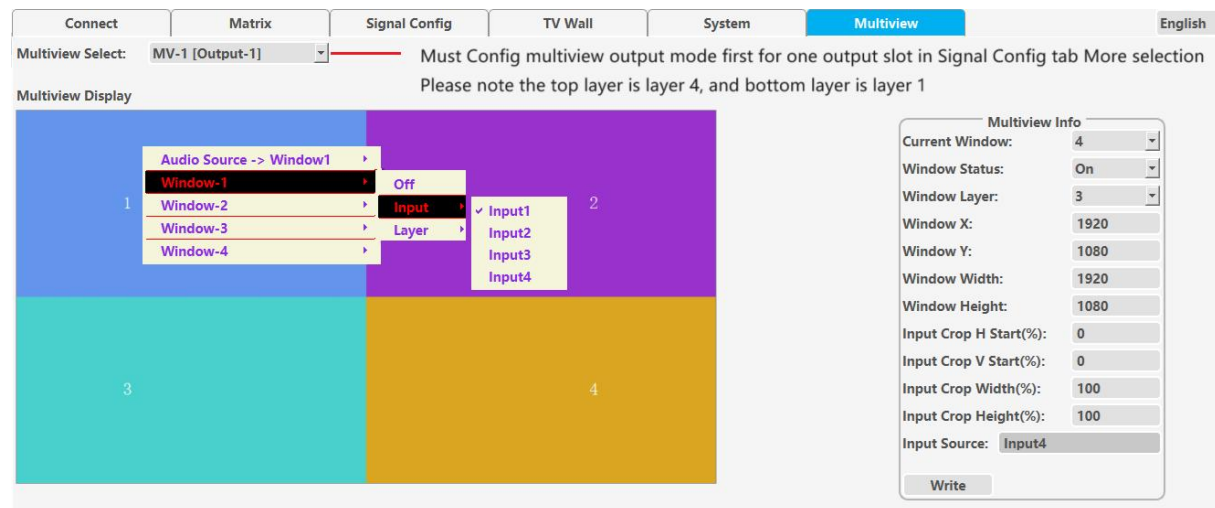
4.4 TV wall tab

This tab set the splicing wall parameters: layout, bezel compensation, input/output settings, etc



Please note: In order to ensure the synchronization of moving video on each screen during splicing output, if the output resolution of one or some splicing output ports is changed, please be sure to restart the device. Similarly, the various splicing operations of LED screens mentioned below also need to be done in this way.

4.5 Multiview tab



4.6 System tab

This tab sets network parameters, resets, reads software versions, etc

Connect Matrix Signal Config TV Wall **System** Multiview

Network Module

Number	Device Name	IP	MAC	Version
1	LQSX_N8	192.168.0.247	50-0A-00-34-00-62	24

Search Device Open Website Load Default

Basic Config

UPNP Port: 6432 Device Name: LQSX_N8

HTTP Port: 80 MAC: 50-0A-00-34-00-62

Device ID: 1 IP Type: Static IP

Device ID Type: 0 Static IP: 192.168.0.247

User Name: admin Subnet Mask: 255.255.255.0

Password: admin Gateway: 192.168.0.1

Write

Port Config

Baud Rate: 9600

Baud Rate Param: None 8 1

Flow Control: None

Work Mode: TCP Server

Remote IP: 192.168.0.247

Remote Port: 23

Local Port: 23

Server Connect Count: 3

TCP Server Style: 0

Modbus TCP: None

Pack Time: 10

Pack Len: 200

☐ Sync Baud Rate

Write

Reset: Reset

Firmware Version: Main

4.7 Peripheral tab

User can set the two relays to be on or off to control related peripheral device. And can send RS232 or RS485 commands at a specific baud rate to control other peripheral device.

Connect Matrix Signal Config TV Wall System Multiview **Peripheral** English

Relay

1 ☒ On ☐ Off

2 ☒ On ☐ Off

Read

User Cmd Line

Set Cmd Line Num: 4 ☐ Loop Send Import Config Export Config

Peripheral	Port	Baudrate	HEX	Command Line	Send	Order	Delay(ms)
Peripheral		9600	☒	0A 99 55 44	Power off projector 1	Edit	1 1000
Peripheral		57600	☒	44 0A 55 99	Note2	Edit	2 1000
Peripheral		115200	☒	99 55 44 0A	Note3	Edit	3 1000
Peripheral	1	115200	☐	SET ON	Note4	Edit	4 1000

Click here to send single command

Click here to send the command list one by one

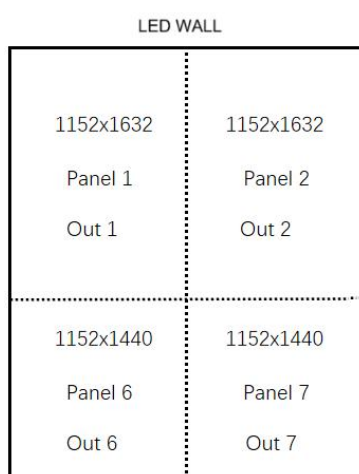
Send

5. How to set pixel to pixel display with LED panel/sender card

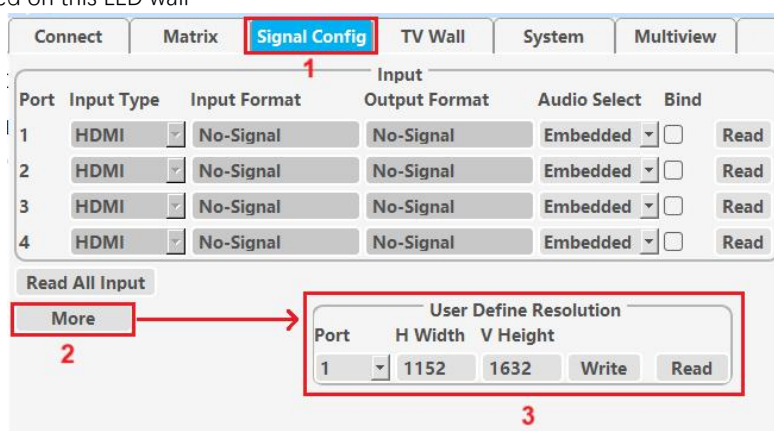
- Step 1**, connect input cable between source and one input port of the matrix switcher.
- Step 2**, connect output cable between LED panel/sender card and one output port of the matrix switcher.
- Step 3**, read the EDID of LED panel/sender card with PC Tool and download this EDID to the input port of the matrix switcher.
- Step 4**, set the output resolution of this output port as USER or AUTO. When set USER, need configure the user define resolution first, and make the user defined resolution to match the physical resolution of the LED panel unit completely.

6. How to fit with a LED wall with different physical size panel units -MultiPanel

Sometimes we may encounter situations where the width or height of the LED splicing panel units are different. In this case, in addition to setting up the relevant splicing operations normally firstly, then we also need to make the following configurations

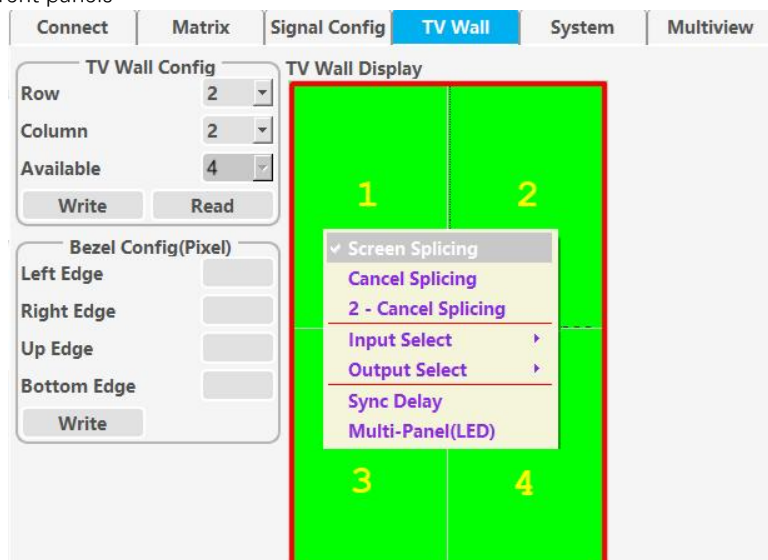


A. Set user define output resolution to the physical display resolution of the corresponding LED panel for **every** output port which displayed on this LED wall



B. Turn to TV Wall Tab and press alt Q on PC keyboard

C. Press right button of the mouse, then appears the interface as below, and click MultiPanel, then system will automatically fit the different panels



D. If user want to exit MultiPanel function, he need cancel this video wall, then system will automatically exit MultiPanel function

E. Please note MultiPanel function is not included in scene save or recall